CLAIMS:

1. A method for the comparative determination of the heat changes caused by physical or chemical processes, characterized in that a difference image is recorded using an infrared camera, which image corresponds to a subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes.

2. The method according to claim 1, wherein chemical reactions performed with the aid of a catalyst are observed as said chemical processes, wherein the catalysts are arranged in the form of a catalyst library over the surface of a library plate.

3. The method according to claim 1, wherein sorption processes, phase transitions or conversions at or of materials arranged on the surface of a library plate are observed as said chemical or physical processes.

4. The method according to claim 2, wherein said catalyst libraries consist of catalyst components in the form of metal oxides and/or mixed metal oxides, the precursors of which are arranged as aqueous or alcoholic solutions of silicon or metal compounds in the form of their alkoxy derivatives, mixed alkoxy derivatives, alkoxyoxo or acetylacetonate derivatives or in the form of their halides or carboxylates over the surface of the library plate, followed by drying and calcining.

5. The method according to claim 4, wherein said catalyst components are carbides, nitrides or zeolites.

6. The method according to any of claims 2 to 4, wherein said library plate consists of a material having low infrared reflectivity.

7. The method according to claim 6, wherein said library plate consists of slate.

8. The method according to any of claims 2 to 4, wherein said library plate is coated with a film having low infrared reflectivity.

9. The method according to any of claims 2 to 7, wherein the region of the surface of the library plate not occupied by catalysts or materials is coated with a non-wetting film.

10. The method according to claim 2, wherein said library plate contains reaction cavities comprising liquid reaction solutions with homogeneous catalysts.

11. The method according to claim 10, wherein enzymes or soluble organometallic compounds are employed as said catalysts.

12. The method according to claim 2 or 10, wherein the selectivity or the enantio-selectivity of catalyzed reactions is determined on libraries.

13. The method according to any of claims 2 and 4-12, wherein the catalysts are within a reactor under reaction conditions and are recorded by the externally provided infrared camera through an infrared-transparent window.

14. The method according to any of claims 1 to 13, wherein the infrared emission is recorded through a wavelength-specific infrared filter.

15. The method according to claim 13, wherein surfaces of the reactor interior space are coated with a paint having low infrared reflectivity.